FYI

DHEC's Office of Solid Waste Reduction and Recycling

For Your Information...

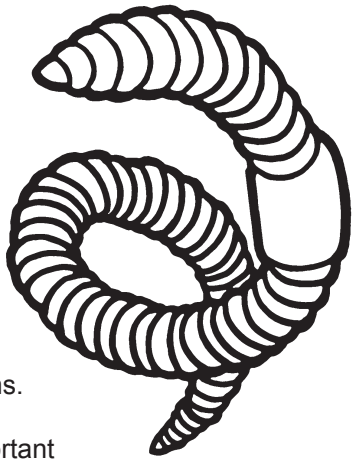
How to Compost in Your Backyard

Backyard composting is a simple process with big benefits for the homeowner. If you enjoy gardening or have poor soil, composting is for you. It is readily adaptable to fit your lifestyle, income, yard size and overall ambition. By using yard trimmings and some food wastes, you can produce a great soil amendment for vegetables, flowers and your landscape.

Backyard composting can be performed by a variety of methods such as open piles, burying materials in pits or enclosing materials in drums or bins. Your goal is to have enough material (about three feet high and three feet wide) along with air and water to get it "cooking" and raise the temperature to speed the process.

Composting Helpers

Composting is simplified for you by organisms that live in the soil and on the surface of organic material. The smallest and most numerous of these decomposers are naturally occurring micro-organisms like bacteria, molds and fungi. They are assisted by beetles, centipedes, millipedes and perhaps the best decomposer, earthworms.



All these creatures play important roles in the food web of the compost heap. Your job is to provide the proper conditions for these organisms flourish. Just like you, they need food, air, water and a habitable temperature. If you see "bugs," rest easy. They are working for you.

What do decomposers need?

1. **FOOD:** Organic material, ideally in a carbon:nitrogen ratio of 30:1, feeds the decomposers. You can visualize a mix of mostly brown, dried material (high carbon) and a small amount of green, fresh material (high nitrogen).

Brown (Carbon) Material	Green (Nitrogen) Materials	DO NOT USE These Materials
Leaves	Grass clippings	Meat, fat, grease, bones
Hay, straw	Weeds (without seeds)	Weeds gone to seed
Coffee filters	Coffee grounds, tea bags	Dairy products
Wood chips, sawdust	Fruit and vegetable scraps	Diseased plants
Shredded paperboard	Manure (no dog or cat)	Dog or cat droppings
Yard and garden trimmings	Egg shells	Peanut butter, oil

2. **AIR:** Oxygen is needed by aerobic (oxygen requiring) organisms. Turning the pile brings air to the compost. If you do not turn it, anaerobic (living without oxygen) organisms can produce gases that smell like rotten eggs. If this happens, just give the pile a few turns.

3. **WATER:** The organisms need a thin film of moisture to live in. Compost should be as moist as a wrung out sponge. Drying out will stop the composting process.

4. **HABITAT AND TEMPERATURE:** The pile needs to be large enough to begin "cooking." A pile or bin should be about three feet square and three feet tall. Bins help hold in heat and moisture and look neater. The heat in a well-turned pile can reach 130 degrees. If it is not warm to the touch, make sure it's turned and watered as a wrung out sponge to increase the heat.

VERMICOMPOSTING: Worm composting is an easy, efficient way to recycle food scraps into a fine, high-quality compost called worm castings. This type of composting is becoming more popular with apartment dwellers, schools and anyone who wants to compost but doesn't have the space for an outside bin.

To start, get a plastic container about two by three feet with a lid. Drill drainage holes in the bottom and air holes around the top. Set the container on a bottom catch tray for any drainage. Shred newspaper or tear it into two inch long sections and moisten it to be as damp as a well-wrung sponge. Fill the bin about half way.

Get red worms – also called "red wigglers" (but not earthworms) – from a bait shop, by mail order or from a friend. They reproduce rapidly and two worms can multiply into nearly 2,000 in six months. Begin feeding them any vegetable or fruit scraps on one side of the bin, covering the scraps with some of the newspaper. One pound of worms eats about one-half a pound of food scraps per day. As one side to the bin becomes filled with castings, it will look like peat moss. Then, stop adding food to that side of the bin and switch to the other side. Keep it slightly damp but never wet.

After a few weeks, use the castings a nutrient for your garden or flower bed. It provides great nutrients for your plants.

Composting: Getting Started

1. Choose a shady, convenient location away from large trees if you start a pile on bare ground because tree roots love compost and will steal nutrients from your pile.

2. You can purchase a bin or make your own.

3. Start the pile with coarse material such as twigs on the bottom to build in air passages.

4. Add alternating layers of brown/carbon leaves and green/nitrogen food scraps or grass clippings about two to six inches high. Add water if materials are dry. Add old compost (if available) to introduce naturally occurring micro-organisms.

5. Mix the leaves and food scraps as you collect them because the pile will not heat up until they are mixed.

6. An option to consider is a cover (tarp or black plastic trash bags) to help maintain the moisture level.

7. Add water after you add each layer, if needed. The pile should always be moist like a wrung-out sponge.

8. If composting kitchen scraps, bury them in the center layers of the pile to discourage pests and flies.

9. The temperature should go up to about 130 degrees in a few days. It should feel warm inside the pile. If it starts to cool down, turn it to introduce a fresh supply of oxygen.

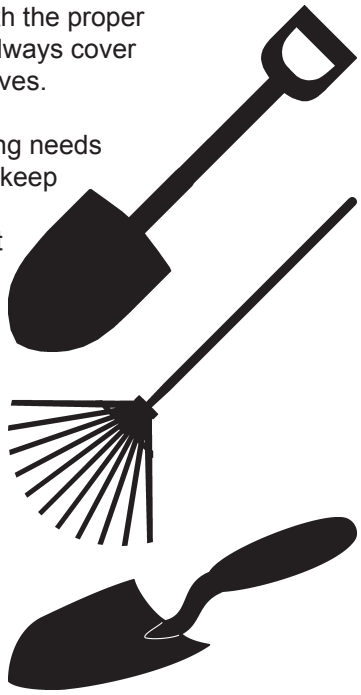
10. Additional turning speeds up the process for faster compost, but is optional.

The Basics: 1-2-3

1. **FILL IT.** Fill a bin with the proper organic materials. Always cover food scraps with leaves.

2. **TURN IT.** Composting needs food, air and water (keep it as wet as a wrung sponge). If you want compost quickly, turn it about once a week. If you don't turn it the process will take longer.

3. **USE IT.** Use compost as mulch or soil enricher. To make potting soil, add one part sand to two parts compost.



BONUS: Add red wiggler worms. They help to aerate the pile and make a richer compost.

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